

described herein. An example of a perceptual map of reference fragrances and attributes used in evaluating the same is shown in FIG. 6. The reference fragrances are represented by small boxes alongside their corresponding notes and the attributes are shown in large case letters surrounded by rectangular boxes.

FIG. 7 shows a reference fragrance map after having been adjusted to reflect the appropriateness of or distribution of preference among the reference fragrances for use, for example, in shampoos. Reference fragrances associated with significant positive consumer preferences are surrounded by darker ovals and lighter ovals, in order of decreasing preference. Those with significantly negative consumer preferences are in triangles.

Further evaluations are elicited from consumers of the degree or extent to which each attribute describes or is otherwise attributable to given fragrances used in related consumer products. Evaluations of preferences for these given fragrances are elicited, and a relative preference for each given fragrance, as associated with a given use, is calculated. This relative preference is the proportion which the preference evaluation for each given fragrance bears to the sum of the preference evaluations for all given fragrances. Changes in the relative preference for each given fragrance, which result from a given percent change in an attribute evaluation for a given fragrance, which resulting change is reflected by the resultant relocation of the point representing each given fragrance on the perceptual map, are measured by the Euclidean distances of those points from the points representing the reference fragrances on the perceptual map and the preference evaluations for the reference fragrances.

A model created in accordance with this invention can be updated or modified over time, and trend data based thereon can be incorporated in the model to predict trends in market shares.

The static validity of methods performed in accordance with this invention is typically demonstrated by a correlation between real market shares of products and the estimated shares based upon the total preference or purchase probability calculated for those products, of over 0.90, as shown in FIG. 8. The dynamic validity is also typically demonstrated by a similar correlation, measured over time, as shown in FIG. 9.

It will be understood that the invention is not limited to the preferred illustrations and embodiments described above, but also encompasses the subject matter delineated by the following claims and all equivalents thereof.

I claim:

1. A method for evaluating consumer response comprising:

- a. conducting interviews of consumers whereby rational, stereotype and personality descriptors of related items are elicited and descriptors, which the interviews indicate are least effective as bases for the consumers to distinguish between the items, are eliminated;
- b. eliciting from consumers evaluations of the extent to which the non-eliminated descriptors are attributable to items;
- c. calculating a discrimination index of the evaluated descriptors whereby the least number of descriptors, which provide the most discrimination between items and which systematically account for the greatest amount of behavioral variance over

70% among the interviewed consumers, are identified as attributes;

- d. eliciting from consumers evaluation of the extent to which attributes are attributable to reference items and to given items for uses associated with the items;
- e. eliciting from consumers evaluations of a degree of preference for given items for uses associated with the given items;
- f. performing an independence factor analysis of the attributes in order to form clusters of related attributes;
- g. creating a multi-dimensional matrix of factors for uses associated with the given items wherein points representing the reference items and the given items are plotted based upon the attribute evaluations associated with the respective item;
- h. determining the effect of a given change in an attribute evaluation for a plurality of consumers for a given item by measuring the relationships among the Euclidean distances between the points representing the items and reference items on the matrix and the degrees of preferences for the given items.

2. A method according to claim 1 which further comprises computing for each consumer a purchase elasticity curve determined by points defined by (i) the relative proportion which the likelihood of purchasing each item identified as a potential purchase bears to the sum of all of such likelihoods for all such items and (ii) the Euclidean distances between the points on the squeezed matrix representing the items identified as potential purchases and the point representing the ideal item.

3. A method according to claim 2 which further comprises determining for each consumer the propensity of a given change in an attribute evaluation to effect a change in the likelihood of purchasing each item relative to the concomitant change in the likelihood of purchasing each other item whereby a propensity weight is assigned to the attribute evaluations for each consumer which weight corresponds to the slope of the portion of the purchase elasticity curve computed for said consumer falling between the points which represent the items for which the propensity to change is being determined.

4. A method according to claim 1 wherein a squeeze analysis of the attributes is performed whereby (i) a matrix is created wherein points representing the Euclidean distances between each item and the ideal item are plotted based upon the attribute evaluations associated with each item and (ii) an importance weight is assigned to each attribute so that the Euclidean distances between the points on the matrix representing each item and the point representing the ideal item are re-ranked into the same order as the likelihoods of purchasing each item.

5. A method according to claim 1 wherein the effect of a given change in an attribute evaluation for all consumers for a given item is further determined by measuring the correlation between attributes and calculating concomitant adjustments in other attribute evaluations in accordance with such correlations.

6. A method according to claim 1 which further comprises creating a perceptual map wherein points representing attributes are plotted with respect to the ability of the respective attributes to provide a basis for consumers to distinguish one reference item from other reference items and points representing reference items are plotted with respect to the attribute evaluations